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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,643	01/24/2002	Antonio Abbondanzio	RPS920010149US1	3474

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EXAMINER

MATTHEW, AARON D

ART UNIT

PAPER NUMBER

2114

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/057,643	Applicant(s) ABBONDANZIO ET AL.	
	Examiner Aaron D Matthew	Art Unit 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/24/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 2, element 204. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: the word, "server", on line 3 of page 7 should be replaced with, "service", to be consistent with the drawings and the preceding language of the specification.

Appropriate correction is required.

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3. Claims 1-20 have been examined and are discussed below.

Claim Objections

4. Claims 7, 14 and 20 are objected to because of the following informalities:

The phrase, "update the insertion responsive to a power event," on line 2 of claims 7, 14 and 20, is confusing in light of the surrounding language, and the specification. The examiner assumes and recommends that the phrase should be changed to read, "update the insertion log responsive to a power event."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6, 8-11, 13, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahrens, Jr. et al, (U.S. 6,745,147 B2), and further in view of Ladner et al, (U.S. 5,251,150).

Regarding claims 1 and 8, Ahrens, Jr. et al discloses a data processing network, (see col. 3, line 12), comprising, a plurality of data processing systems, (server blades), connected to a common network, (see col. 1, lines 33-35, and col. 2, lines 38-42), comprising:

- At least one main processor, (see Figure 2, element 101), connected to a system bus, (Fig. 2, element 106);
- A system memory, (Fig. 2, elements 108 and 160), connected to the system bus and accessible to each of the main processors;
- A tamper mechanism, configured to change state responsive to insertion of the system into a slot in a rack enclosure, (note col. 2, lines 48-52); and
- A local service processor, (see Fig. 2, element 135), connected to the tamper mechanism, (see col. 7, lines 47-51), and configured to update an insertion log responsive to detecting a changed state of the tamper mechanism, (note col. 7, lines 57-65), wherein the insertion log provides a history of at least some rack insertions to which the system has been subjected, (see col. 3, lines 3-9).

Ahrens, Jr. et al further teaches that one of ordinary skill in the art will recognize that the product data, (i.e. insertion data), could be stored locally on each server blade, (see col. 2, lines 66-67, and col. 3, lines 1-2).

Ahrens, Jr. et al fails to explicitly teach that each blade comprises, local to the blades, said one main processor, system memory, tamper mechanism and local service processor.

Ladner et al teaches a system in which circuit boards, that are to be inserted into a chassis, include all necessary hardware for enabling routines that are specific to the particular circuit board, (see col. 2, lines 9-14).

Ahrens, Jr. et al and Ladner et al are analogous art because they are from the same field of endeavor, viz., circuit boards inserted into slots in a rack enclosure.

One of ordinary skill in the art at the time of applicant's invention, in view of Ladner et al, would have considered it obvious to include all hardware disclosed in the system of Ahrens, Jr. et al, used for maintaining said insertion log, locally within each server blade. In so doing, as shown by Ladner et al, a developer that wishes to design a server blade with the capability of maintaining an insertion log needs only to consider the hardware local to the server blade to enable such functionality, (see Ladner et al, col. 2, lines 35-38). This eliminates the complexity involved with requiring the developer to appropriately interface with the system into which the server blade is inserted, in order to enable a particular function of the server blade, (i.e. maintaining an insertion log). One of ordinary skill in the art, therefore, would have been motivated to include all hardware necessary for the insertion-log-

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maintaining functionality of the server blade, (a main processor, system memory, tamper mechanism and local service processor), within the housing of the server blade, in order to simplify the designer's task in developing a server blade with said functionality.

As per claim 15, note Ahrens, Jr., et al col. 9, lines 45-62, in which it is taught that a data processing network, as described in claim 8, would necessitate a computer program product comprising a set of computer executable instructions stored on a computer readable medium comprising means for carrying out the functionality of the system disclosed in claim 8. Therefore, claim 15 is rejected based on the rejection of claim 8.

Regarding claims 2 and 9, see Figure 2, element 191, and col. 5, lines 12-14 and 45-47, wherein a non-volatile storage element is accessible exclusively to the local service processor and contains the insertion log, (see also, col. 6, lines 13-14).

As per claim 16, note Ahrens, Jr., et al, col. 9, lines 45-62, in which it is taught that a data processing network, as described in claim 9, would necessitate a computer program product comprising a set of computer executable instructions stored on a

computer readable medium comprising means for carrying out the functionality of the system disclosed in claim 9. Therefore, claim 16 is rejected based on the rejection of claim 9.

Regarding claims 3 and 10, see Ahrens, Jr. et al, col. 7, lines 47-51 and 61-64, wherein the insertion log includes an insertion counter, and wherein the local service processor is configured to increment the insertion counter upon each insertion.

As per claim 17, note Ahrens, Jr., et al, col. 9, lines 45-62, in which it is taught that a data processing network, as described in claim 10, would necessitate a computer program product comprising a set of computer executable instructions stored on a computer readable medium comprising means for carrying out the functionality of the system disclosed in claim 10. Therefore, claim 17 is rejected based on the rejection of claim 10.

Regarding claims 4 and 11, note Ahrens, Jr. et al, col. 8, lines 34-39, wherein the local service processor is configured to issue an alert responsive to the insertion counter exceeding a predetermined value.

As per claim 18, note Ahrens, Jr., et al, col. 9, lines 45-62, in which it is taught that a data processing network, as described in claim 11, would necessitate a computer program product comprising a set of computer executable instructions stored on a computer readable medium comprising means for carrying out the functionality of the system disclosed in claim 11. Therefore, claim 18 is rejected based on the rejection of claim 11.

Regarding claims 6 and 13, note Ahrens, Jr., et al, col. 7, lines 57-61 and Figure 6, wherein each entry in the insertion log includes the identity of the rack enclosure and the geographical address of the slot of the corresponding insertion event.

As per claim 19, note Ahrens, Jr., et al, col. 9, lines 45-62, in which it is taught that a data processing network, as described in claim 13, would necessitate a computer program product comprising a set of computer executable instructions stored on a computer readable medium comprising means for carrying out the functionality of the system disclosed in claim 13. Therefore, claim 19 is rejected based on the rejection of claim 13.

6. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahrens, Jr. et al in view of Ladner et al, as applied to claims 1 and 8 above, and further in view of Nouri et al, (U.S. 6,138,250), and Christeson, (U.S. 5,822,581).

Regarding claims 5 and 12, Ahrens, Jr. et al, in view of Ladner et al, fails to teach a battery backed real-time clock connected to the local service processor, wherein the local service processor is configured to include real-time information corresponding to each insertion event in the insertion log.

Nouri et al teaches a computer system which stores a system log with real-time and date referencing of system events, (see col. 5, lines 40-46), which is powered by a remote interface if the local power supply is off, (see Abstract). Thus, Nouri et al, teaches a real-time clock, with an alternate power source, for enabling said referencing.

Nouri et al fails to teach that said alternate power source is a battery.

Christeson teaches a computer system for storing configuration information including time and date information provided by a battery-backed clock, (see Abstract and col. 1, lines 60-64).

Ahrens, Jr. et al in view of Ladner et al, Nouri et al, and Christeson are analogous art because they are all from the same field of endeavor, viz., maintaining configuration information of a computer system.

At the time of applicant's invention, one of ordinary skill in the art would have considered it obvious to combine the battery-backed clock of Christeson with the real-time and date referencing clock of Nouri et al. Nouri et al, does teach that the real-time clock should be provided an alternate power source in the event a local power supply is off. One of ordinary skill in the art would have clearly recognized, in view of Christeson, that a battery offers a simple and readily available alternate power source that can be used regardless of the on/off state of normal system power. Therefore, one of ordinary skill in the art would have been properly motivated to include the battery-backed clock of Christeson, with the real-time and date referencing clock of Nouri et al, in order to allow the latter system to log real-time and date information related to a monitored event regardless of an alternate system power state.

At the time of applicant's invention, one of ordinary skill in the art would have considered it obvious to combine the real-time clock of Nouri et al, as modified above by Christeson, with the data processing network as disclosed in Ahrens, Jr. et al, in view of Ladner et al. Nouri et al teaches that recording real time and date references in a log, corresponding to a monitored event, offers system

administrators an advantage of being able to reconstruct system activity as it pertains to real-time data, (see col. 5, lines 43-45), which is very helpful in diagnosing system data in the log. One of ordinary skill in the art would, therefore, have been properly motivated to use a battery backed real-time clock connected to the local service processor, to enable the local service processor to include real-time data corresponding to an insertion event in the insertion log, in order to aid a system administrator in the diagnosis of the log data.

7. Claims 7, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahrens, Jr. et al, in view of Ladner et al, as applied to claims 1, 8 and 15 above, and further in view of Wade et al, (U.S. 5,280,398).

Regarding claims 7 and 14, Ahrens, Jr. et al, in view of Ladner et al, fails to teach that the local service processor is configured to detect the tamper mechanism state and update the insertion log responsive to a power event such that the insertion log update is independent of configuring the data processing system with a boot image.

Wade et al teaches a removable tamper-resistant drive module comprising a usage counter that is responsive to a power event for updating a record of insertions/removals and power applications, (see col. 2, lines 40-51). Said updating

of said record is independent of configuring the data processing system with a boot image.

Ahrens, Jr. et al, in view of Ladner et al, and Wade et al are analogous art because they are from the same field of endeavor, viz., tamper-resistant systems implemented in removable devices for tracking insertion/removal activity of the devices.

At the time of applicant's invention, one of ordinary skill in the art would have considered it obvious to include configuring the local service processor of Ahrens, Jr. et al, in view of Ladner et al, to detect the tamper mechanism state and update the insertion log responsive to a power event such that the insertion log update is independent of configuring the data processing system with a boot image. As shown by Wade et al, tamper activity of a removable computer device can be related to both insertion/removal activity, as well as power events. Configuring the tamper mechanism to update the insertion log responsive to a power event creates a more thorough image of the tamper history of the removable computer device. Such an update should be independent of configuring the data processing system with a boot image because the removable device location and status is not altered as a result of the power event. Therefore, in view of Wade et al, one of ordinary skill in the art would have been properly motivated to configure the local service processor of Ahrens, Jr. et al, in view of Ladner et al, to detect the tamper mechanism state and

update the insertion log responsive to a power event, independent of configuring the data processing system with a boot image, so as to develop an insertion log that presents a more thorough image of the tamper history of the device.

As per claim 20, note Ahrens, Jr., et al, col. 9, lines 45-62, in which it is taught that a data processing network, as described in claim 14, would necessitate a computer program product comprising a set of computer executable instructions stored on a computer readable medium comprising means for carrying out the functionality of the system disclosed in claim 14. Therefore, claim 20 is rejected based on the rejection of claim 14.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mitchell (U.S. 6,662,119 B1) teaches a method for detecting the insertion of a line card into a backplane slot, and maintaining an insertion count on the line card in order to monitor the degradation of the backplane connectors.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron D Matthew whose telephone number is (703) 605-1211. The examiner can normally be reached on Mon-Fri, from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aaron D Matthew
Examiner
Art Unit 2114

ADM


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